DOCUMENT RESUME

ED 361 907 EA 025 305

AUTHOR Miller, Harrell G.; Aboudara-Robertson, Laurie
TITLE Redwood Middle School Responds to the Interdisciplinary Challenge. Practitioner's Monograph #14.
INSTITUTION California League of Middle Schools, Irvine.
PUB DATE May 93
NOTE 20p.
AVAILABLE FROM California League of Middle Schools, 18012 Cowan, Irvine, CA 92714 ($5).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Curriculum Design; *Curriculum Development; *Educational Innovation; High School Students; *Integrated Curriculum; *Interdisciplinary Approach; Junior High Schools; *Middle Schools; School Restructuring; Secondary School Teachers
IDENTIFIERS Middle School Students; Napa Valley Public Schools CA

ABSTRACT

This paper describes a middle-level reform effort implemented at Redwood Middle School in Napa, California. The school has been identified as an exemplary middle school that effectively combines affective and cognitive experiences for its students. In this monograph, the principal describes how the school's teachers developed a culture that supports their interdisciplinary work. The restructuring plan had three major components--interdisciplinary units of study, teacher/team empowerment, and student/school connectedness. The process through which the academic teams and departments were linked is described in detail. The process has been in use for 18 months and has developed 12 interdisciplinary study units. Outcomes of the interdisciplinary curriculum include reduced teacher isolation, increased teacher and student enjoyment of course work, and increased productivity. An interdisciplinary unit timeline and information on California League of Middle School publications are included. (LMI)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

# California League of Middle Schools

ED 361 907

**Practitioner's Monograph #14:**

**REDWOOD MIDDLE SCHOOL**

**RESPONDS TO**

**THE INTERDISCIPLINARY CHALLENGE**

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN **OTHER THAN PAPER COPY** HAS BEEN GRANTED BY

C.L. Zon

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

C·L·M·S

18012 Cowan, Suite 110 ★ Irvine, CA 92714
Phone: 714•261-CLMS ★ FAX: 714•261-2578

EA 025 305

BEST COPY AVAILABLE

California League of Middle Schools

# Practitioner's Monograph #14:

# REDWOOD MIDDLE SCHOOL

# RESPONDS TO

# THE INTERDISCIPLINARY CHALLENGE

by

HARRELL G. MILLER
in collaboration with
LAURIE ABOUDARA-ROBERTSON

edited by
CARL ZON

May, 1993

Copyright 1993

California League of Middle Schools
18012 Cowan, Suite 110
Irvine, CA 92714
(714) 261-2567

The **California League of Middle Schools** is an association of people who are interested in furthering the growth and development of middle schools and middle school concepts. The League is composed of parents, teachers, school and district administrators, State Department of Education officials, and others who have an interest in the education of early adolescents.

To order additional copies of this monograph or others in the series, please see the order form at the end of this document. For more information about the League or its publications, please contact us at:

CLMS
18012 Cowan, Suite 110
Irvine, CA 92714
(714) 261-2567

## Preface

Harrell Miller has been principal of Redwood Middle School in Napa, California, since 1980. With his leadership, middle level reform has flourished and students are experiencing the blend of affective and cognitive experiences which characterize exemplary middle schools. In this monograph, Harrell describes how Redwood's teachers have developed a culture which is supporting their interdisciplinary work. ***Redwood Middle School Responds To The Interdisciplinary Challenge*** is a practical companion piece to ***Interdisciplinary Curriculum In The Middle Level School,*** an earlier CLMS monograph publication. The California League of Middle Schools salutes the Redwood Middle School principal and staff for its exceptional commitment and contribution to middle level education.

**A Significant Change in Configuration**

Redwood Junior High School opened for business thirty-six years ago as the second junior high school in Napa, California with a third to follow just one year later. At that time, Napa had the unusual configuration of K-6, 7-10 and 11-14, incorporating the local junior college on the high school campus.

In 1965 the configuration shifted to the more traditional K-6, 7-9, 10-12. However, the departure of the tenth graders from Redwood did little to change the program which continued to look very much like a high school for younger students. Departments, with their chairpersons, were quite independent of one another, and teachers, though compassionate enough to survive in a pre-adolescent world, still saw their primary role as teachers of subject matter.

By 1979 enrollments were declining and the School Board, faced with the difficult task of closing schools, decided to send the ninth graders to the high schools, and reconfigure the three junior high schools into two grade 7-8 schools. Fortunately, there were those in the district who saw this as a significant window of opportunity.

Middle school had been an occasional topic of conversation in the district for several years. Now, with a significant change in configuration about to take place, looking at philosophy and structure seemed to be an idea whose time had come. In the fall of 1982 Redwood Middle School opened with 960 students in two grades, six academic teams--three per grade, and virtually no extra curricular hold-overs from junior high days.

Teams were "in" and departments were "out". Team leaders replaced department chairpersons. Teachers shared conference periods with team members from other disciplines and quickly discovered that what they had in common was 165 students. We were even

nodding knowingly in the direction of the developmental characteristics of young adolescents thanks to occasional exposure to middle level "gurus". But, academic disciplines remained isolated from one another. In addition, departments were now so spread out that teachers of the same disciplines seldom saw each other.

**The Interdisciplinary Door Opens**

We spent the remainder of the eighties learning how to work together in teams, discovering ways in which to take the developmental characteristics of students more seriously, developing middle level-appropriate extra and co-curricular activities, absorbing the myriad of suggestions and directions outlined in ***Caught In The Middle***, and responding to the various middle level curricula as they began to come to us in the State Department of Education generated frameworks and curriculum guides. On a dozen different fronts we were attempting to give credibility to our school motto, "Every Student A Star, Every Teacher A Champion!"

During these years, the word interdisciplinary began to crop up in workshops and conferences we attended. Certainly, it sounded like our kind of idea. In fact, some of us even thought we could make the case that we were already "doing it". Consequently, had someone asked me before the spring of 1991 whether Redwood Middle School delivered any of its curriculum to its students via interdisciplinary units of study, I am sure I would have answered yes and referred inquirers to the social studies and language arts teachers who occasionally "double graded" their work. I also might have found math and science teachers who had collaborated on a science lesson which just "happened" to require some coincidental mathematics work.

To be sure, there were teachers who knew that these nods in the direction of interdisciplinary cooperation hardly qualified as the real thing. Nevertheless, these efforts

represented steps away from the "closed door" approach and were the natural outgrowth of interdisciplinary teaming.

**An Approach Suited to Our Students**

We began to talk more about interdisciplinary curriculum in 1990 and began the year with a district scheduled workshop for middle school teachers on writing interdisciplinary units. This piqued the interest of those who attended, however, no serious unit development efforts followed. It was not until a veteran Redwood social studies teacher suggested to team colleagues that a project he had used successfully through the years might be divided among them to form the basis of an interdisciplinary unit of study, that a serious interdisciplinary stir began among the staff.

In the winter of 1991, the "7B Dragons" scheduled a release day funded with school improvement money, divided Ernie Fly's "Create A Newspaper" unit into four parts, and developed those parts into two-week units for each of their classes. Mr. Fly, the social studies teacher, became the project director responsible for the overall development of the paper including the layout and the "news". Jim Christman's math classes brought their graphs and statistics lessons into the project, and students were required to include these, in the format of ***U.S.A.Today***, in their stories. Cindy Wallen's science classes contributed the weather section along with special feature articles. Editorials were the responsibility of Mari Yarborough's language arts students.

The project was not necessarily the focus of every class every day, but, from the students' perspective, their newspapers were being worked on daily in one class or another. All teachers on the team and a group of parent volunteers read and graded the products. As the success of the project was shared with the faculty, particularly the number of students finishing the assignment and the quality of their work, it became as great an impetus to

faculty-wide development of interdisciplinary curriculum as anything to which our teachers had been previously exposed.

Cindy Wallen, whose science students worked on this first unit, recalls the impact this approach had on her teaching.

> "The most significant piece of the interdisciplinary newspaper for me was the feeling of connectedness I had with my fellow teachers as well as with my students. It was inspiring to have a significant contribution to make toward the final product in my science classes and to know that the other academic teachers were working on the same final product. The newspaper project was my first experience with this type of instruction. It proved to me that interdisciplinary teaching was the way to go. The students benefitted because they saw how each of the disciplines supported one another."

Other teams developed spin-off ideas from the "Create a ...." theme including "Create a Country" and "Create a Planet". These were very much "seat-of-the-pants" attempts at working with interdisciplinary units, but they did demonstrate what the journal writers and workshop presenters were saying about how well this approach suited students in the middle. In the months that followed there were other interdisciplinary efforts, questions about the availability of these kinds of units commercially, additional workshops, and an increased faculty awareness of interdisciplinary curriculum development.

**Launching Our Schoolwide Effort**

The restructuring challenge of Assembly Bill 1274 caused the faculty to adopt our current position regarding interdisciplinary themes and projects. In their efforts to get beyond "tinkering around the edges of what we do and how we do it," the faculty proposed a plan for restructuring Redwood Middle School which included three major components: the restructuring of curriculum delivery via interdisciplinary units of study; teacher/team empowerment; and student/school connectedness.

Our proposal met with a "right on, but no cigar" response from the 1274 readers who

gave us a perfect score, but no funds. By the time we received this news however, we were so committed to the ideas we had developed that we decided to use our School Improvement Program (SIP) monies to implement activities in the fall of 1991. In the meantime, our district grant writer submitted our plan to the F.I.R.S.T. (Fund for the Improvement and Reform of Schools and Teaching) Office of the U.S. Department of Education. They liked the plan as well, only this time there were plenty of "cigars" to implement our work.

Our plan included a minimum of five release days for curriculum development involving virtually everyone on the faculty. Along with the normal number of workshops and other out-of-class commitments, this created a concern for most teachers, especially when "substitute days" were seen as double duty involving both preparation and the work the release day involved. We needed something other than the usual substitute assignment routine.

Our answer was identifying a consistent team of substitutes. The district cooperated by giving us first choice when we requested our substitute teachers. Some of our regular teaching staff met with and oriented these substitutes to the Redwood way of doing things. They were also given additional time to design a generic "study skills" curriculum based on school and district guidelines. This resulted in classes being taught by auxiliary teachers who were familiar with our program and our clients, who brought their own lessons with them, and who left minimal follow-up for regular teachers when they returned the next day.

As we launched into writing interdisciplinary units, we began with three fundamental conditions which we felt had to be met to achieve success. First, our units were not to be add-ons, i.e. we did not want teachers to feel that they had to "stop what they were doing" in order to accommodate an interdisciplinary unit of study. Consequently, we concluded that teachers should have their curriculum frameworks "in their hands" as they wrote their units so that framework components were incorporated into unit goals and objectives.

Second, we began with a commitment to include everyone in every unit-physical

education and exploratory classes along with language arts, social studies, science, and mathematics classes. As work progressed however, it became apparent that genuinely including everyone might be more than we could handle. Consequently, efforts in this area have changed in the last year and a half.

We have moved away from the idea of total inclusion to an evolving unit support role for both physical education and exploratory classes. The support and enhancement of the work of the academic teams is a challenging assignment. On any given day, it is not unusual for teachers of physical education and exploratory classes to find themselves involved with six teams, each working at different levels on six unique interdisciplinary units of study. They are developing effective, generic support activities which will add significantly to the overall school-wide commitment to integration.

Finally, we wanted teams other than the one writing the unit to be able to teach the unit successfully. Teams were cautioned therefore to avoid building units which depended on the talents or resources of particular individuals for their success. We agreed that a unit would truly be complete when it had been successfully field tested by another team and that team's experiences had been appropriately incorporated into the unit.

As those who have been there know, the vision of restructuring must include steps from where you are to where you want to be. Happily, our steps have flowed naturally from our vision and have remained relatively unchanged from the way we defined them in the spring of 1991.

**Linking Our Teams and Departments**

It was the intent of our staff to devise a method for writing units which would insure that everyone would know what everyone else was doing. To achieve this, we proposed the use of a jigsaw model (see Calendar, Appendix A) that would move the units being

constructed back and forth between our academic teams and our subject matter departments. Five professional growth days, using either total-school S.I.P days or substitute teachers to release individual unit development teams, would provide necessary writing time. The five day series would be preceded by a total-faculty workshop during which everyone would become familiar with a vocabulary, a style, and a process of writing school-wide interdisciplinary units.

Our workshop presenter was one of our own teachers, Laurie Aboudara-Robertson. Her expertise in dealing with interdisciplinary curriculum development, as well as other middle school elements, was well known and highly regarded across our state.

"It was critical," remembers Laurie, "that the entire project for year one be looked at from the perspective of 'process and product.' The staff was being asked to learn the process for creating interdisciplinary units as well as the specifics of their own individual units. This first day marked the beginning of this journey together."

To a large extent, much of the process which Laurie shared with the staff was based on the work of Heidi Hayes Jacobs, the author of ***Interdisciplinary Curriculum: Design and Implementation.***[1] A six step process included selecting a theme, brainstorming subject area concepts, constructing guiding questions (objectives), and developing master activity plans, individual subject activity plans, and unit evaluation strategies.

In mid-October our teams began working together on one of our district-wide S.I.P. days. Scheduled a week after the initial kick-off workshop, our staff had the process and the ideas introduced by Laurie fresh in their minds. The first step, theme selection, was very important. Teams needed to choose themes which lent themselves to incorporating a maximum amount of regular curriculum material. Consequently, all the teams needed to work together to achieve this.

---

[1] Interdisciplinary Curriculum: Design and Implementation. Association for Supervision and Curriculum Development, 1989. Jacobs, Heidi

Our day one process involved a brainstorming session; a bidding session for teams to select from the brainstormed theme list; and a negotiating session in which final agreement was reached regarding individual responsibilities. For the remainder of the day, teams explored how they might approach their units, what some of their guiding questions might be, and what kinds of outcomes they might expect. By the end of the day, all team members were able to talk about their unit with enough general understanding to present it to their department colleagues during the next unit development day.

Day two was another S.I.P day approved by the district for unit development. Representatives from each team met by department to present their respective interdisciplinary team's unit for elaboration by departmental colleagues. For example, the math teacher from the "8D Eagles", now sitting with math teachers from all teams, briefly explained her team's unit theme and anticipated unit outcomes. Next, all the math teachers brainstormed the theme, including how math might be worked into the unit, and what elements of the Framework might be successfully addressed.

Day three in mid-November engaged substitute teachers to release individual teams who reconvened to continue their work. Each team met respectively for one day within a six day period. Each team member brought the collective wisdom of department colleagues acquired during day two. Team members reviewed their topics and the enhanced list of possible concepts to be covered in preparation for writing guiding questions.

This stage of the process was critical as it determined the direction and focus of the unit. With a basic understanding and agreement from all members that all information on the chosen theme could not possibly be covered, the teams collaboratively set parameters. The guiding questions became the blueprint for the entire unit. Each question was written to be easily understood by both students and teachers. The questions cut across all subject area lines and defined unit scope and sequence.

Once the guiding questions were established, teams constructed master and individual activity plans for each unit. Working closely with their calendars, subject area teachers decided which concepts/activities would be carried out in which classes and which ones were activities for all team members. Flexible scheduling and varied group configurations became tools used by team members to construct purposeful unit activities. Activities were included only if they provided information which would lead students to answer guiding questions. Work begun on this day continued on an individual basis as subject area teachers finished their individual lesson plans.

On day four, shortly after our return form winter recess, another series of substitute release days allowed team members to meet again with their department colleagues, up-dating them on the work in progress and getting their responses and suggestions for more specific ways their particular discipline and resources might be worked into the unit.

With substitutes in their classes, teams met together again on the fifth day of the process, scheduled during the early days of February. Team members spent this day making necessary adjustments, gathering materials, and establishing final plans for field testing their units.

March and April provided an eight week window for field testing the three or four week units. Teams were then given one final release day to evaluate their unit experience and make changes in preparation for teaching the units again the following year prior to "publishing" them.

**Time For Reflection**

As we fine tune our knowledge about the unit development process, we are considering a more focused procedure for 1993-94. Having teams meet for two or three days during the summer to develop a unit followed by a department review and enhancement day

early in September seems like a natural evolution of our process. End-of-the-year team and staff dialogue will determine if we take this step.

We have been involved with interdisciplinary unit writing for a year and a half. Each interdisciplinary team developed one unit last year, field tested it, and taught it again this year. In addition, each team is currently involved in repeating the process with a second unit. Teachers, now in a position to evaluate their involvement and the effectiveness of this project, offer valuable insights.

Ellen Frank, an experienced elementary teacher in her third year in middle school, talks of the effect interdisciplinary curriculum work has had upon her team: "[It] has allowed each team member to share his or her area of expertise with the other members of the team enabling each of us to see how many abilities and talents we have to use in working together. In addition, it has made for a more satisfying atmosphere among team members. The cooperation and feelings of being able to offer something to the group effort has brought us together in a closer working relationship with each other."

"I have had the opportunity," observes first year writing laboratory teacher, Francine Cardone, "to listen to students' feedback on the unit taught by their teams. Many of the students were excited, motivated, and made verbal connections with the thematic unit and their world."

Francine goes on to point out one of the effects of less than total buy-in by a team, "One student said that she felt very good about the unit; however, in one subject area they did not do the unit. The student expressed concern and regret, and she searched for a link in that subject area. This conversation validated in my mind that the philosophy of an interdisciplinary unit works. Students make sense, find connections, and relate thematic units to learning as a whole. Therefore, as educators, we must all create a linkage between fields of knowledge, so we can encourage efficient, motivated learners."

Veteran middle level social studies teacher Alvin Marlow sees teachers gaining in two distinct ways from these units. "First," Al notes, "they must approach their subjects from the perspective of the chosen theme. This requires viewing familiar material from a new angle or through borrowed lenses. The teachers often gain new insights, simply because they had not previously been looking for them in that particular way. Second, each teacher sees how other subjects and teachers contribute to the unit goals. This awareness helps avoid a sense of isolation. Teachers are more willing to participate in group or out-of-class activities since they see these as meeting the needs of their subject as well as the needs of the interdisciplinary unit."

"For me," says Jan Buzolich, currently in her second year at Redwood, "success of interdisciplinary units is weaving the current curriculum together in such a way that the student doesn't see it as a departure from but an arrival at the conclusion that subjects taught in school are interrelated. When taught in an interdisciplinary way, one reinforces the other."

Christina Brittan comments on the work her "7B Dragon" team is currently doing. "The unit we are now in the process of doing, 'Cycles,' has been very successful as it has allowed all the disciplines to teach things that we planned to teach anyway. We just found the common denominator that made it all click. I think that this has made the unit very powerful. Of course, we shall only really be able to evaluate it after the kids make their comments."

"I think it is really important," says Redwood drama teacher, Chris Smircich, "to take the time during the planning stage of the unit to figure out what each teacher is teaching, where the common threads are and weave the unit around those areas. That way, the unit becomes an enhancement to the curriculum rather than a detour from it."

"L.E.P. students often have a chance to shine during the project itself or during the authentic assessment of an interdisciplinary unit," reports Loreen Schallon, whose "8D Eagles" include approximately twenty-five limited English proficient students. "Students who

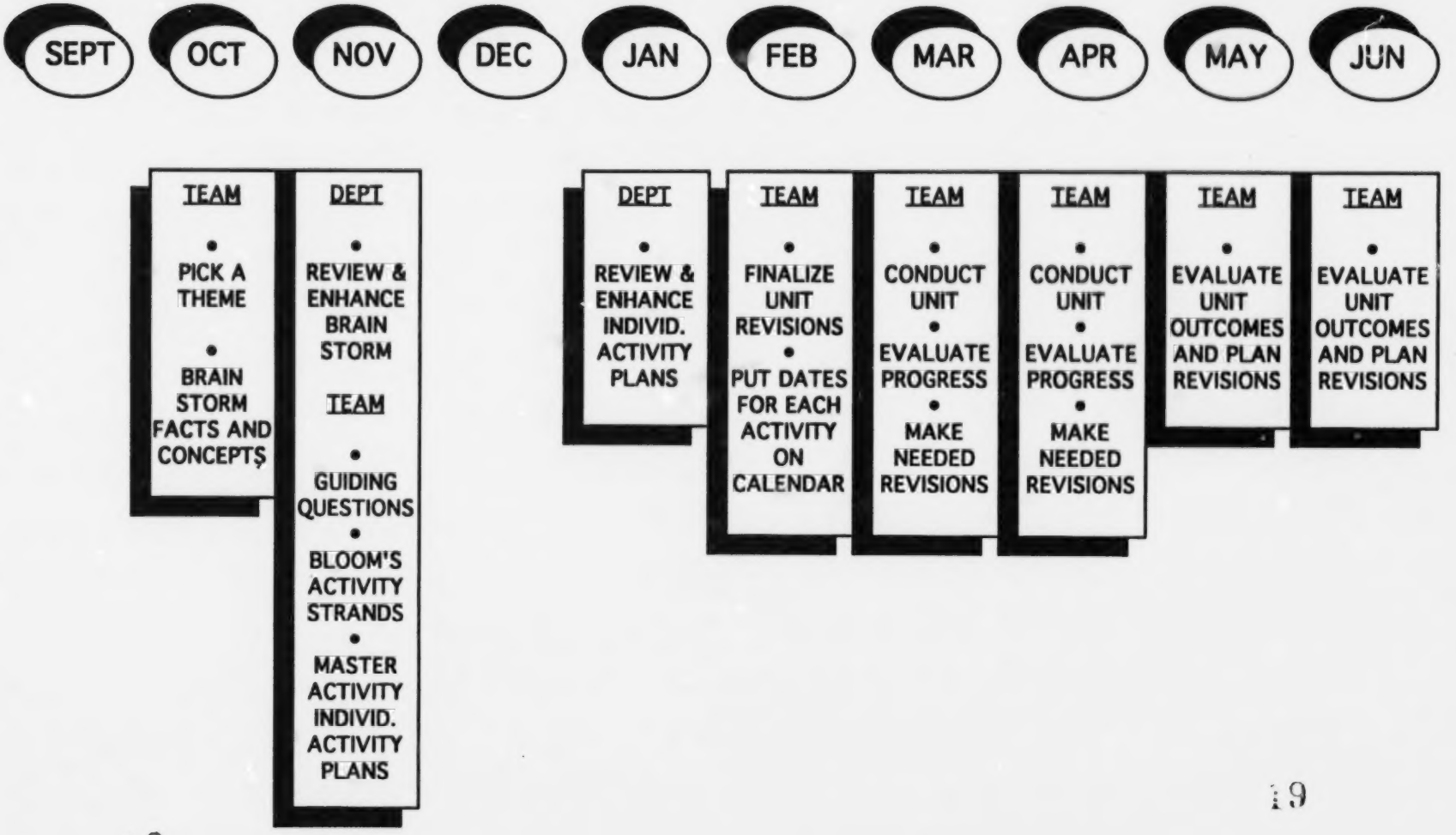
have been regarded as non-entities suddenly have marketable spatial or kinesthetic strengths: Ryoko's artistic talent draws other students to her for help; Eric's electronic capabilities send him scurrying from station to station; and Fidel's imagination creates an unlimited resource. Equal access to the curriculum becomes equal access within the curriculum. Purpose is everything to L.E.P. students--give them a reason and a means to learn and the resistance will disappear."

**Our Focus...Our Future**

Eighteen months into the process with twelve units in progress hardly qualifies Redwood as a demonstration school for interdisciplinary curriculum development. However, the time and the effort have shown that our direction offers hope. What was once seen as the inevitable isolation of teachers and teaching is beginning to melt away due to the collaboration that interdisciplinary work requires. New teachers, who in previous years often found themselves on the outside looking in, are suddenly in the middle of the most exciting and challenging work the faculty has experienced. Those hard and fast lines that seem to have forever compartmentalized the student's world have begun to fade and at times even disappear as we pursue a project that requires a little bit of everything.

There is a certain magic which characterizes the interdisciplinary adventure when teachers suspend their regular schedule to accommodate unit activities; when teachers and students alike are working harder than they've ever worked and enjoying it so much that the end of the day catches them by surprise; when assessment time finds everyone with something to show for their efforts and some with more than they've ever shown before. Interdisciplinary may not be the final word, but for those of us who knew about the "Wonder Years" long before the television series, it has unleashed a potential which will keep us focused until the final word is found.

# INTERDISCIPLINARY UNIT TIMELINE



## PRACTITIONER'S MONOGRAPH SERIES

The California League of Middle Schools has published the following practitioner's monographs. The price of each monograph is **$5.00 per copy, which includes California sales tax, shipping and handling.** Your order will be shipped to you within two weeks from the date we receive it. The following monographs are now available:

1. Scheduling the Middle Level School: Philosophy Into Practice
2. Equal Access to Education: Alternatives to Tracking and Ability Grouping
3. Instructional Practices for Middle-Level Students: Developing Self Directed Learners
4. Supporting Middle Level Students through Counseling and Teacher Advisor Programs
5. Co-curricular Activities for Middle Level Schools
6. Interdisciplinary Curriculum in the Middle Level School
7. Interdisciplinary Team Organization in the Middle Level School
8. Exploratory and Elective Courses in the Middle Level School
9. The Rationale for the Middle Level School
10. Making the Transition to Middle Level Schools
11. Defining An Effective Climate for a Middle Level School
12. Teacher as Action Researcher: The Key to the Middle Level Reform
13. Screening Criteria for Professional Media Presentations on Middle Level Education
14. Redwood Middle School Responds to the Interdisciplinary Challenge

---

Please mail me the following monograph(s). My check or purchase order, made payable to the California League of Middle Schools, is enclosed.

| | | # of copies | Total price @ $5.00 ea. |
|---|---|---|---|
| #1: | Scheduling | _____ | _____ |
| #2: | Alternatives to Tracking | _____ | _____ |
| #3: | Instructional Practices | _____ | _____ |
| #4: | Teacher Advisor Program | _____ | _____ |
| #5: | Co-curricular Activities | _____ | _____ |
| #6: | Interdisciplinary Curriculum | _____ | _____ |
| #7: | Interdisciplinary Teaming | _____ | _____ |
| #8: | Exploratory & Elective Courses | _____ | _____ |
| #9: | Rationale for Middle Level | _____ | _____ |
| #10: | Making the Transition | _____ | _____ |
| #11: | Defining an Effective Climate | _____ | _____ |
| #12: | Teacher as Action Researcher | _____ | _____ |
| #13: | Screening Criteria for Media | _____ | _____ |
| #14: | Redwood Middle School Responds | _____ | _____ |
| | | Total Enclosed | $_____ |

SHIP TO:

Name:_____ Title:_____

School:_____

Address:_____

City:_____ State:_____ Zip:_____

**California League of Middle Schools 18012 Cowan, Suite 110, Irvine, CA 92714**
**(714) 261-2567 FAX (714) 261-2578**